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Pennsylvania Department of Education

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ABSTRACT

Assessment of self-esteem has been part of Pennsylvania's Educational Quality Assessment Program for 12 years. Since school building reports describe the results of assessment in predominately norm referenced terms, additional information is needed to supplement the comparative data. This paper, intended for the practioner, describes an item analysis process designed to provide better insight into the self-esteem needs of students. The item analysis process has become a popular activity in workshops with school district staff. Examples of similar scoring schools with meaningful differences in terms of item clusters are given.

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INTRODUCTION

Pennsylvania's Educational Quality Assessment (EQA) program has conducted assessment in a variety of cognitive and affective areas since 1970. One of the most important affective areas, as perceived by educators and parents, is self-esteem. Since EQA school building reports describe the results of assessment in predominantly norm referenced terms, additional information is needed to supplement the comparative data. The primary objective of this paper was to illustrate the manner in which item analysis techniques have been used by school district staff to extract information with programmatic implications. Examples of similar scoring schools with meaningful differences in terms of item clusters were described. For practioners working with school districts in the self-esteem area, some of the methods reported in this paper may be applicable.

Background of the EQA program

Pennsylvania's EQA program has provided a school building assessment on each of the state-adopted Goals of Quality Education for the past 12 years. Assessment takes place at grade levels 5, 8, 11. Students are tested in 14 areas, half of which are cognitive (e.g., reading, writing, mathematics, etc.) and half noncognitive (e.g., self-esteem, understanding others, attitude toward school and learning, etc.). Data are also collected on a series of student background variables (e.g., amount of television viewing, amount of homework, parental education and occupation levels, etc.), teacher variables (e.g., average class size, perceived problems in 39 areas listed under 6 broad categories such as discipline problems or teacher influence upon instructional decisions, etc.), and school variables (e.g., grade enrollment, tuition, etc.). All of this information is included in an extensive 24-page report returned to the school during a three-hour interpretation session conducted by an EQA staff member.

During the early years of the EQA program, scores on the various measures were reported only in terms of a school building mean, a percentile rank showing how the building compared to the state representative sample of schools and a predicted score range taking into account a variety of school and community characteristics. Although this provided comparative information, it did not include more detailed information desired by administrators for drawing program inferences. To move beyond the vagueness of a total score, schools were supplied with a frequency distribution for each item of the self-esteem instrument. Over the years, a procedure for conducting a structured item analysis has evolved to provide better insight into the self-esteem needs of the students in a particular building.

METHOD

Nature of the Item Analysis Process

Generally, an EQA item analysis process, distributed to school district staff, is a document consisting of directions and worksheets to guide the activity. It provides for an organization of items according to subscale clusters and for comparing the percentage of positive responses on each item by students in the building with a standard in order to make judgements about relative strong and weak points in self-esteem. The standard most often used for comparative purposes is the state percentage of students selecting each option on an item. Appendix A displays the self-esteem item analysis process.

EQA Measurement of Self-Esteem

The EQA self-esteem instrument consists of 33 items at grade 5 and 32 items for grade levels 8 and 11. Three broad clusters of items comprise the instrument at each level. These include items depicting relationship with teachers (e.g., "Teachers correct me without hurting my feelings."), peer relations (e.g., "I feel accepted by my classmates."), and self image in a school context (e.g., "I give up if I don't understand something."). Approximately half the items in each cluster represent feelings of acceptance and the remaining half, feelings of success.

Because the complete EQA test package consists of over 650 items, it is broken down into several forms in order to reduce testing time. This procedure, known as multiple matrix sampling, involves four forms at grade 8 and 11 and three forms at grade 5. During test administration, booklets are distributed in such a way that an essentially random fourth (or third) of the students receive a given form. All students respond to an equal number of items on each of the 14 cognitive and affective areas assessed. Therefore, at grade 5 where there are a total of 33 self esteem items, each form consists of a different set of 11 items. The original assignment of items to forms was done in such a way as to minimize form to form differences in average item mean. A complete description of the measurement rationale, scoring and technical properties of the self-esteem instrument is found in a document entitled Getting Inside the EQA Inventory (Kohr, Hertzog and Seiverling, 1980).

Mechanics of the Item Analysis Process

To conduct an item analysis, one needs, in addition to the worksheets contained in the process document, the school building item response data found on one of the pages of the school building report (see example in Appendix B) and the page in the Manual for Interpreting School Reports (Hertzog and Seiverling, 1979), which displays the self-esteem items along with the statewide response distributions (see example in Appendix C). Because of the matrix sampling procedure, all items are identified according to form and item sequence number.

Directions for carrying out the item analysis process are presented under the "procedure" heading in Appendix A. An illustration follows, using the sample building data in Appendix B and the statewide information from Appendix C. Items are identified by form (a letter code) and by item sequence number within a form. The first three teacher relationship items from the grade 5 instrument are items A-1, A-5, and A-7, the first two being positively stated and the third, negatively stated.

SELF-ESTEEM
Grade 5

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Diff.: COLUMN A COLUMN B
Teacher Items								
A	1	33	50	83	43	42	85	- 2
A	5	33	39	72	36	42	78	- 6
A	7	39	39	78	36	27	63	+15

In this elementary school, item A-1 ("My teachers usually tell me when they think I have done good work"), was positively responded to by 83 percent of the students taking form A (33 percent with "strongly agree" and 50 percent with "mostly agree"). Eighty-five percent of the fifth graders in the state representative sample responded in the positive direction (43 percent with "strongly agree" and 42 percent with "mostly agree"). Subtracting column B from column A yields a difference value of -2 which simply means that an estimated 2 percent fewer students in the school answered the item in the positive direction than in the state sample. For the negatively stated item, A-7 ("My teacher sometimes make me feel that I cannot do good work"), 78 percent of the students in the school answered positively (39 percent with "strongly disagree" and 39 percent with "mostly disagree") while 63 percent of the students statewide answered positively (36 percent with "strongly disagree" and 27 percent with "mostly disagree"). The difference value of +15 indicates that an estimated 15 percent more students in this school responded positively than in the state.

For school staff to decide when performance on an item could be judged "acceptable" or "unacceptable" a standard or criterion must be employed. Rather than impose a fixed standard (e.g., 60 percent responding positively) which ignores item to item differences, the EQA approach uses the state average as the suggested criterion. Since the state average for any given item is

based on a representative sample of about 10,000 students, it provides the best estimate of the degree of positiveness toward the attitude measured by this item. An item difference value is found by subtracting the state percent favorable response from the school percent favorable response. Thus, positive difference values represent more favorable attitudes by students in the building than observed for the state. Negative difference values reveal less favorable responses for the school than typically found for the state. The state average is regarded as the best estimate of the typical degree of favorability of the attitudes measured by the item. The greater the departure from the state average, in either a positive or negative direction, the greater the confidence that a "strength" or a "weakness" may exist with respect to the item.

Identifying Interpretable Patterns Among Clusters

Interpretation of an item analysis should begin by determining whether the performance for one cluster of items is different from another cluster. These differences were referred to as a pattern or profile. Examples, displaying self esteem item analysis results for two elementary schools, are found in Appendix D. In the examples, a mean cluster difference was calculated by adding the difference values for the items in the cluster and dividing by the number of items comprising the cluster. These mean cluster differences, which provided a general overview of cluster performance, were circled on the examples. In the self-esteem data for sample school 1, the following mean cluster differences were observed for the three item clusters:

Teacher relationship items	= 2
Peer relationship items	= - 5
Self-image in school items	= -11

In this pattern or profile of cluster performance it was evident that as a group, the student responses on self-image in school items were the least positive, whereas for the teacher relationship items students displayed the most positive responses. The following are data shown for another school (sample school 3) which exhibited a profile of mean cluster differences that was unlike sample school 1:

Teacher relationship items	= -7
Peer relationship items	= 10
Self-image in school items	= 3

In this instance, student responses on items comprising the teacher relationship cluster as a group showed the least positive responses, whereas the peer relationship items exhibited the most positive responses on the part of the students.

Sometimes a profile was found to be very flat, that is, student responses did not exhibit large differences between mean cluster scores. Consider the following profiles:

Cluster	School A	School B	School C
Teacher relationship	-2	+7	-6
Peer relationship	-1	+4	-7
Self-image in school	+1	+5	-9

Here, the differences were not distinctive enough to draw major conclusions regarding the relative strength or weakness of the clusters. This does not necessarily mean that one cannot draw any conclusions from the item analysis. It was often possible to detect a meaningful theme linking items that had relatively "high" or "low" difference scores but which appear in different clusters.

It was considered important to identify those items having the largest difference values and engage in a logical thought process to determine if some reasonable theme could be identified. As an illustration, students in a school whose item analysis revealed a rather flat cluster profile responded most negatively to items found across all three clusters that suggested "a poor image of their ability to do school work effectively." The following items "stood out" by virtue of their having negative difference values ranging from -8 to -23:

My teachers sometimes make me feel that I cannot do good work.

My teachers don't think that what I say is important.

My teachers want better work from me than I can do.

My teachers often make me feel that I can't do anything right.

My classmates think I have good ideas.

It bothers me if my classmates disagree with what I think.

I'm proud of my school work.

I am able to do many things well in school.

I give up if I don't understand something.

I am good at picking out the right things to study.

I can't seem to do anything in school very well.

The first four items are in the teacher relationship cluster, the next two items are from the peer relationship cluster and the remaining five from the school image cluster.

Cautions in Drawing Conclusions Concerning Strengths and Weaknesses

Drawing conclusions about strengths or weaknesses in various clusters can be done with several considerations in mind. First, it is important to look for consistency in the direction (positive or negative) and magnitude of difference values. If, for example, six of the teacher relationship items reflect positive difference values and the remaining five items, negative values, and the two sets of items were not distinctive in some thematic way, then the picture is quite mixed, perhaps contradictory and certainly inclusive.

Second, generalizations should only be made with respect to a group of items. Sometimes it is tempting to look at a particular item where performance is exceptional and then over-generalize from that item.

Third, it is a statistical fact that average building level test scores fluctuate more (from year to year) in buildings with small grade enrollments than in larger schools. Thus, the administrator of such a building needs to be much more tentative in drawing conclusions leading to modifications in curriculum. In the item anaylsis process, where a relatively small number of students would have responded to a given item, the requirement for consistency in direction and magnitude of item difference scores within clusters is even more crucial.

EVALUATION

Reaction of School Districts to the Item Analysis Process

The item anaylsis process has been a highly popular activity in workshops conducted for school administrative staff by EQA. In these sessions, participants have an opportunity for "hands on" experience in completing an item analysis using data from their own schools. In these workshops, 82 to 97 percent of the participants rated this activity a "4" or "5" on a five point scale in which "5" represents "highly valuable." In sessions focusing on interpretation of item analysis, 74 to 89 percent of the participants gave ratings of a "4" or "5." Item analysis has even been the focus of special day long sessions conducted for school administrators at several intermediate units. In a survey conducted with the school districts involved in the 1980 assessment (Hertzog and Seiverling, 1981), 76 percent indicated that their staff members used the EQA item analysis processes. Numerous positive comments accompanied the survey returns. Two such commentaries follow:

> "We found the EQA results very valuable in working on our Long Range Plan. It provided us with the basis for our needs assessment. The item analysis processes gave a new dimension to the results. It made the end result much more meaningful to us."
>
> "The EQA test in general, and the item analysis aspect specifically, were valuable to us in Long Range Planning . . . The staff became aware of the specifics because of the item analysis, and we were able to isolate areas and problems within each goal area."

Correlational Analysis

During the interchange that took place between EQA staff and school administrators at interpretation sessions, concern was sometimes expressed that the building percentile rank in self-esteem seemed lower than anticipated in districts situated in rural regions of the state. As a result of interviews conducted with students, it appeared that this was due to a cultural pattern in which students tended to respond in a more modest fashion. This might be termed a "modesty response set" originating from a rural cultural pattern. EQA staff wondered whether rural schools also displayed systematic differences in the pattern of cluster mean differences obtained from an item analysis.

Another informal observation growing out of the author's experience in examining item analysis results, was a tendency for schools with smaller enrollments to have a greater divergence between cluster values. To examine this possibility, a "maximum difference" was computed by substracting the lowest cluster mean difference from the largest cluster mean difference. Thus, a school having mean cluster difference values of +3, +5 and -2 (for teacher relationships, peer relationships and self-image in school respectively), would have a maximum difference of 7 (5 - (-2) = 7).

As a first step, Pearson product-moment correlations were computed among the following variables: the self-esteem school building mean score, parental education level, community type, mean cluster difference scores for teacher relationships, peer relationships, and self-image in school, the maximum difference value and number of students. For each variable a high score represents a greater quantity of the characteristic measured. Thus a high parental education score is indicative a high educational level for the parents whose students attend a particular school. Community type is a population density index in which a low score refers to a rural environment and a high score, an urban area. Table 1 displays the correlation matrix at each grade level. The findings obtained from correlational analysis were summarized as follows:

(1) There was a moderate tendency for cluster difference values (TCHR, PEER, SCHL) to correlate positively with one another showing that where one cluster difference value was high, the others also tended to be high.

(2) Number of students (NSTU) was correlated in a negative direction with the maximum difference (MAXD) at each grade level, indicating that schools with smaller enrollments did tend to exhibit larger maximum difference scores, thus supporting the suspicion originating from informal observations. At grade 11, the number of students also correlated with parental education (PED) and community type (COM), which simply reflected the tendency for large schools to be found in more populated areas which also tend to be higher socioeconomically.

(3) Community type (COM) had little relationship to any variable at grades 5 and 8, but at grade 11, exhibited a fairly substantial relationship with the self-esteem building mean score and number of students. While community type and self-esteem seemed to be essentially uncorrelated at grades 5 and 8, there appeared to be some tendency for self-esteem scores to increase with population density at grade 11.

The lack of a linear relationship between self-esteem building mean score and community type seemed contrary to the field observations which had ocurred more frequently than chance would suggest. This lead to the suspicion that the linear model may be an inappropriate representation of the actual relationship. Correlations depicting a quadratic form were computed by entering both a linear and squared community type term into regression analysis, with the remaining variables serving as dependent variables. The methodology for this analysis is described in Cohen and Cohen (1975). The results, summarized in Table 2, confirmed that a quadratic model provided a better fit to the data than a linear model in a number of instances. With respect to the grade 5 self-esteem mean score, the quadratic correlation with community type reached .38 (curvilinear relationships are unsigned), increasing the percentage of accounted-for variance by 14 percent. A smaller, although statistically significant improvement, was also observed at grade 8, where the quadratic relationship reached .22. By contrast, the linear correlation of .37 provided the best fit at grade 11.

To better describe the nature of the curvilinear relationships reflected in Table 2, means and standard deviations were computed for each variable within community type groups. These results were presented in Table 3. The general trend for self-esteem and community type at grades 5 and 8 is one of an increase in mean school score as one goes from rural to suburban communities, with a decrease for urban schools. Grade 11, however, displayed a linear, rather than a curvilinear, trend. At all three grade levels parental education (PDE) covaried with community type (COM) in a well-established curvilinear pattern. Educational level increased from rural to suburban communities and decreased sharply for urban. Cluster difference value for teacher, peer and self-image in school, demonstrated similar but less-pronounced trends at grades 5 and 8.

Conclusions

Some support was obtained for the observation that small enrollment school buildings display greater maximum cluster differences, although correlations were relatively low (.23 to .34). Several possible interpretations have been considered for this finding. It is possible that small enrollment buildings which are statistically susceptible to more fluctuation, are more prone to exhibiting divergence between cluster difference values. It also seems likely that small enrollment schools, especially at the elementary level where there are many buildings having only one fifth grade class, exhibit greater separation of cluster differences because the students responding are more likely to be basing their perceptions on a single teacher. Conversely, in larger enrollment buildings, there is probably a greater averaging effect that takes place, thereby reducing divergence.

Several observations are in order regarding the concern of whether rural schools differed from schools found in other types of communities. First of all, the analysis confirmed a general tendency for rural schools to score low in the overall self-esteem building mean score (SE). The relationship of self-esteem mean scores and community type is curvilinear at grades 5 and 8 with scores tending to increase with an increase in population density, reaching a peak in suburban communities, then dipping in urban areas. At grade 11, however, the relationship was linear with self-esteem mean scores increasing (becoming more positive) with population density.

The relationship between the maximum difference and community type tended to be essentially zero in both a linear and curvilinear sense or, at best, a very weak (.17 at grade 11) correlation. The examination of the TCHR, PEER, and SCHL mean cluster scores for a consistent pattern was not eventful. The mean score for small towns was most consistent across grade levels where the means appear essentially the same. For rural schools, the mean SCHL cluster score appeared lower than TCHR and PEER for grades 5 and 11. For suburban and urban communities, the pattern of cluster differences changed from grade to grade.

Although there is a statistical tendency for mean cluster differences to covary together, there is ample evidence for the occurence of sufficient divergence among cluster differences to be educationally meaningful.

Evidence was presented which supported the notion that school administrators found the item analysis process to be a subjectively meaningful experience. Their perception of the process's utility was observed in workshop settings as well as in local district settings as administrators worked through the activity with their teaching staff.

School administrators who have used the item analysis process with their teaching staff have suggested a set of guidelines for effective use of this procedure. These recommendations, presented in Appendix E, should assist the practitioner avoid some common pitfalls and increase the likelihood of a productive experience.

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Table 1

Summary of Correlation Coefficients for Grades 5, 8 and 11

Grade 5 (n=915)

	SE	PED	COM	TCHR	PEER	SCHL	MAXD
PED	.41						
COM	-.04	.06					
TCHR	.81	.35	-.14				
PEER	.71	.25	-.12	.48			
SCHL	.80	.51	-.04	.56	.52		
MAXD	.00	.00	-.05	.00	-.04	.00	
NSTU	-.04	.11	.06	-.10	-.03	.00	-.34

Grade 8 (n=336)

	SE	PED	COM	TCHR	PEER	SCHL	MAXD
PED	.37						
COM	.15	.15					
TCHR	.79	.34	-.09				
PEER	.60	.26	-.05	.42			
SCHL	.79	.45	-.07	.63	.47		
MAXD	-.04	-.11	.00	-.06	-.20	.06	
NSTU	.09	.28	.18	.07	.11	.06	-.23

Grade 11 (n=289)

	SE	PED	COM	TCHR	PEER	SCHL	MAXD
PED	.28						
COM	.37	.20					
TCHR	.66	.34	-.04				
PEER	.67	.28	.17	.46			
SCHL	.83	.30	.15	.62	.58		
MAXD	-.06	-.20	-.17	-.09	-.04	-.04	
NSTU	.07	.42	.41	.00	.16	.01	-.30

Variables

SE	Self-Esteem Mean School Score
PED	Parental Education
COM	Community Type
TCHR	Teacher Relationship Difference Value
PEER	Peer Relationship Difference Value
SCHL	Self-Image In School Difference Value
MAXD	Maximum Difference
NSTU	Number of Students

Table 2

Summary of Relationships for Which the Quadratic Model Demonstrated a Significant Improvement Over the Linear Model

Grade	Dep Var	Indep Var	Correlation Linear	Correlation Quadratic	R^2 Gain	F*	df
5	SE	COM	-.04	.38	.14	148.6	1,912
5	PED	COM	.06	.48	.23	275.6	1,912
5	TCHR	COM	-.14	.37	.12	125.1	1,912
5	PEER	COM	-.12	.27	.06	56.9	1,912
5	SCHL	COM	-.04	.43	.18	207.3	1,912
8	SE	COM	.15	.22	.03	9.7	1,333
8	PED	COM	.15	.55	.28	135.1	1,333
8	TCHR	COM	-.09	.21	.04	13.2	1,333
8	PEER	COM	-.05	.22	.05	16.8	1,333
8	SCHL	COM	-.07	.33	.10	38.6	1,333
8	NSTU	COM	.18	.45	.17	72.5	1,333
11	PED	COM	.20	.52	.23	91.5	1,286
11	MAXD	COM	-.17	.26	.04	11.6	1,286
11	NSTU	COM	.41	.53	.12	46.6	1,286

*All F ratios represent a significant difference beyond .001 level

Table 3

Means and Standard Deviations for Community Type Groups

Grade 5	Rural (n=265)		Small Town (n=245)		Surburban (n=256)		Urban (n=149)	
var	mean	sd	mean	sd	mean	sd	mean	sd
SE	61.31	3.26	62.18	3.23	63.74	3.18	60.48	4.42
PED	3.47	0.39	3.63	0.40	4.21	0.75	3.32	0.57
TCHR	- 0.22	6.31	0.64	6.38	2.62	5.30	- 3.43	7.41
PEER	- 0.34	5.05	0.48	4.97	0.96	4.56	- 2.26	6.92
SCHL	- 0.87	5.23	0.46	4.99	3.89	5.42	- 2.93	6.27
MAXD	7.15	4.42	6.69	4.35	6.64	3.74	6.54	3.99
NSTU	52.62	39.41	61.86	40.48	61.09	26.30	60.83	38.62

Grade 8	Rural (n=73)		Small Town (n=118)		Surburban (n=93)		Urban (n=52)	
var	mean	sd	mean	sd	mean	sd	mean	sd
SE	57.45	2.42	57.85	2.37	59.14	2.16	58.34	2.77
PED	3.34	0.20	3.52	0.35	4.07	0.62	3.36	0.37
TCHR	0.14	4.88	- 0.36	5.48	2.00	4.70	- 2.08	5.92
PEER	- 1.30	3.81	- 0.19	4.03	0.85	3.89	- 1.96	5.89
SCHL	- 0.27	4.42	0.17	4.04	2.58	3.81	- 1.85	4.69
MAXD	5.53	3.47	5.63	3.30	5.29	2.76	5.60	3.86
NSTU	117.75	56.39	150.73	65.46	220.73	98.39	155.88	110.62

Grade 11	Rural (n=59)		Small Town (n=111)		Surburban (n=87)		Urban (n=32)	
var	mean	sd	mean	sd	mean	sd	mean	sd
SE	58.52	2.67	58.66	2.44	59.43	2.10	61.41	2.70
PED	3.36	0.19	3.56	0.30	3.94	0.54	3.42	0.36
TCHR	- 0.05	6.69	- 0.66	5.18	- 0.17	5.32	- 1.91	5.26
PEER	- 0.24	4.69	- 0.71	3.93	0.85	2.98	0.94	3.74
SCHL	- 0.85	4.46	- 0.84	3.63	- 0.20	3.29	0.69	4.35
MAXD	6.73	3.59	4.99	3.03	4.23	2.37	4.88	2.35
NSTU	99.66	43.47	160.98	75.43	285.95	147.69	219.84	139.40

APPENDIX A

EQA SELF-ESTEEM ITEM ANALYSIS PROCESS

Introduction

Students, regardless of their level and pattern of particular talents, should experience a school setting that will strengthen, not damage, their self-esteem. The school should help students at all levels of talent achieve feelings of success and of acceptance that are important in relating appropriately to others and in becoming a successful member of society. Assessment in this area is based on several components believed to be related to the development of positive self-esteem in the school context.

The first is a feeling of acceptance. The feeling of self-worth and acceptance by teachers and classmates is an important ingredient to the development of a positive self-esteem. Those lacking a feeling of acceptance often have difficulty in interpersonal relations and tend to believe that others have little confidence in or low regard for them.

Second, feelings of self-determination and success in school work, class recitation and teacher relationships help to mold feelings of self-confidence -- so important to adequate coping in daily life. Those who lack feelings of success and confidence are often characterized as cautious, submissive individuals who feel inadequate, are fearful and expect to be unsuccessful in dealing with new situations. At all grade levels, the impact of three school-related forces -- teachers, peers and the school environment -- on these components of a child's self-esteem is measured.

For each grade level the self-esteem scale is comprised of short, self-descriptive statements. For grade 5, 15 items are positively worded -- describing the student in a favorable light -- and 18 are negatively worded, characterizing the student in a negative vein. The grade 8 items include 14 positively worded items and 18 negatively worded items. For grade 11, 13 items are positively worded and 19 are negatively worded. Response options available to the students are (1) "Strongly agree," (2) "Mostly agree," (3) "Mostly disagree" and (4) "Strongly disagree."

Procedure

There are no "correct" answers for items in this scale. Instead, the four student response choices are dichotomized: two of the responses are considered to be favorable, the other two unfavorable. Which of the two are considered favorable depends on the wording of the item. If an item is positively worded, the response choices "Strongly agree" and "Mostly agree" are the favorable responses. If the item is negatively worded, the response choices "Strongly disagree" and "Mostly disagree" are considered favorable.

This process uses the two favorable response choices at the local and state levels for comparison. The following steps will be necessary to complete the process:

1. From the local school's item data (page 9 of the school report) enter for each identified item the percent of students responding to the most favorable response choice -- the percent marked with an asterisk(*) -- in the "Local % most favorable responses" column. Then enter the percentage figure appearing next to that in the "Local % favorable responses" column.

2. Add the two figures from step 1 and put the total in the "Total local % favorable responses" column (column A).

3. From page 35 of the Manual For Interpreting School Reports enter the state percent responding to the most favorable response choice -- again the percentage figure marked with an asterisk(*) -- in the "State % most favorable responses" column and the percentage figure appearing next to it in the "State % favorable responses" column.

4. Add the two figures from step 3 and enter the total into the "Total state % favorable responses" column (column B).

5. Subtract the figure in the column B from that in column A and enter it into the "Difference" column. There will be positive and negative differences. For example, if the local percent correct is 58 and the state is 39, enter +19. If the local percent correct is 62 and the state is 71, enter -9.

Analysis

The positive differences on items show that attitudes in the school were more favorable than attitudes of students statewide. Items displaying larger positive values -- +6 or more -- represent areas of strength. A negative difference indicates that attitudes statewide were more favorable than attitudes in the school. Those items with negative values larger than -6 more bear close examination since they are probably indicators of the areas of greatest need. The actual items requiring examination can be found on page 35 of the Manual for Interpreting School Reports.

Like Items Lists

Another type of analysis can be done by using the "Like Items" lists on the last 2 pages. By entering the identified figures from Column A on the previous pages into the "Local % favorable" responses column, comparisons can be made across grade levels. Again, the identified items can be found on page 35 of the Manual.

APPENDIX A (Continued)

SELF-ESTEEM
Grade 5

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
Teacher Items								
A	1							
A	5							
A	7							
A	10							
B	2							
B	4							
B	7							
B	10							
C	2							
C	4							
C	10							
Peer Items								
A	3							
A	6							
A	8							
B	6							
B	8							
B	11							
C	1							
C	3							
C	7							

SELF-ESTEEM
Grade 5
Continued

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
School Items								
A	2							
A	4							
A	9							
A	11							
B	1							
B	3							
B	5							
B	9							
C	5							
C	6							
C	8							
C	9							
C	11							

SELF-ESTEEM
Grade 8

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
Teacher Items								
A	1							
A	5							
A	7							
B	2							
B	5							
B	7							
C	3							
C	7							
D	3							
D	7							
Peer Items								
A	2							
A	6							
B	4							
B	6							
C	1							
D	2							
D	5							
D	6							

SELF-ESTEEM
Grade 8
Continued

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
School Items								
A	3							
A	4							
A	8							
B	1							
B	3							
B	8							
C	2							
C	4							
C	5							
C	6							
C	8							
D	1							
D	4							
D	8							

SELF-ESTEEM
Grade 11

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
Teacher Items								
A	2							
A	4							
B	5							
B	7							
C	2							
C	5							
C	7							
D	3							
D	8							
Peer Items								
A	1							
A	6							
B	2							
B	4							
C	1							
C	3							
C	8							
D	6							

SELF-ESTEEM
Grade 11
Continued

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B
School Items								
A	3							
A	5							
A	7							
A	8							
B	1							
B	3							
B	6							
B	8							
C	4							
C	6							
D	1							
D	2							
D	4							
D	5							
D	7							

SELF-ESTEEM

Like Items at Three Grade Levels

	Grade	Form, Item	Local% Fav.	Item Cluster
1.	5	B,2		Teacher item
	8	A,5		
	11	C,2		
2.	5	B,9		School item
	8	A,3		
	11	A,7		
3.	5	C,6		School item
	8	A,8		
	11	C,4		
4.	5	A,9		School item
	8	B,1		
	11	B,6		
5.	5	C,9		School item
	8	C,5		
	11	A,3		
6.	5	A,11		School item
	8	C,6		
	11	A,5		
7.	5	B,1		School item
	8	D,1		
	11	B,1		
8.	5	C,11		School item
	8	D,8		
	11	B,8		
9.	5	A,3		Peer item
	8	C,1		
	11	B,4		
10.	5	B,6		Peer item
	8	D,2		
	11	C,3		
11.	5	C,7		Peer item
	8	D,5		
	11	B,2		

APPENDIX A(Continued)

SELF-ESTEEM

Like Items at Two Grade Levels

	Grade	Form, Item	Local% Fav.	Item Cluster
1.	5	C,10		Teacher item
	8	A, 1		
2.	5	A,5		Teacher item
	8	D,3		
3.	5	A,4		School item
	11	C,6		
4.	8	A,7		Teacher item
	11	B,7		
5.	8	B,2		Teacher item
	11	C,5		
6.	8	B,5		Teacher item
	11	B,5		
7.	8	B,7		Teacher item
	11	C,7		
8.	8	C,3		Teacher item
	11	A,4		
9.	8	C,7		Teacher item
	11	D,3		
10.	8	D,7		Teacher item
	11	D,8		
11.	8	B,3		School item
	11	D,7		
12.	8	B,8		School item
	11	B,3		
13.	8	C,2		School item
	11	A,8		
14.	8	C,4		School item
	11	D,5		
15.	8	C,8		School item
	11	D,2		
16.	8	A,2		Peer item
	11	C,8		
17.	8	A,6		Peer item
	11	A,1		
18.	8	B,4		Peer item
	11	D,6		
19.	8	B,6		Peer item
	11	A,6		
20.	8	D,6		Peer item
	11	C,1		

<<< EQA, SPRING, 1979: NAME = GR. 5, ID = DATE RUN = 05/30/79 >>>

ITEM FREQUENCY ANALYSIS FOR GOAL I SELF-ESTEEM

FORM	ITEM	OMIT	PERCENT RESPONSE BY OPTION 1	2	3	4
A						
	1	6	33*	50	0	11
	2	6	17	22	44	11*
	3	0	28*	50	17	6
	4	0	11	50	17	22*
	5	0	33*	39	17	11
	6	0	11	17	33	39*
	7	0	6	17	39	39*
	8	0	39*	39	17	6
	9	0	28*	33	22	17
	10	0	17	22	28	33*
	11	0	0	11	39	50*
B						
	1	0	22*	61	11	6
	2	0	28	28	22	22*
	3	0	0	28	28	44*
	4	6	28*	39	17	11
	5	0	0	39	28	33*
	6	0	11	17	11	61*
	7	0	17*	50	22	11
	8	0	11	28	39	22*
	9	0	33*	50	11	6
	10	0	17*	28	17	39
	11	0	11	17	22	50*
C						
	1	0	6*	18	29	47
	2	0	6	29	18	47*
	3	0	24*	53	18	6
	4	0	6	12	18	65*
	5	0	6	0	35	59*
	6	6	18*	47	18	12
	7	0	29	12	29	29*
	8	0	12*	35	0	53
	9	0	24	18	6	53*
	10	0	59*	29	6	6
	11	0	6	19	18	59*

The asterisk (*) indicates the most favorable end of the continuum

NUMBER OF STUDENTS REPLYING: FORM A (N= 18) FORM B (N= 18) FORM C (N= 17)

TOTAL SCALE RELIABILITY ESTIMATE= 0.91 PERCENTAGE OF OMITS= 0.7%

(This page is a sample of the affective goal item response data pages and the Goal X page which follows is a sample of the cognitive pages. Pages 10-23 have been deleted to conserve space.)

<<< EQA, SPRING, 1979: MASI = GR. 8, ID = -280-004, DATE RUN = 05/30/79 >>>

ITEM FREQUENCY ANALYSIS FOR GOAL I SELF-ESTEEM

FORM	ITEM	OMIT	PERCENT RESPONSE BY OPTION 1	2	3	4
A						
	1	0	13*	64	16	6
	2	0	19	40	33	7*
	3	1	12*	76	9	1
	4	0	7	18	67	7*
	5	1	10	27	55	6*
	6	1	24*	57	12	6
	7	0	6	10	70	13*
	8	0	3*	69	21	7
B						
	1	0	8*	40	38	14
	2	0	8	20	45	28*
	3	2	18	34	35	11*
	4	0	26*	52	15	6
	5	0	8	18	60	14*
	6	0	15	15	43	26*
	7	2	3*	32	46	11
	8	2	6	12	52	28*
C						
	1	0	8*	58	26	9
	2	0	6	11	59	24*
	3	0	9*	44	39	9
	4	0	26*	41	24	9
	5	0	8	27	33	32*
	6	0	9	23	52	17*
	7	0	15*	62	18	5
	8	0	3	11	52	35*
D						
	1	0	9*	64	22	4
	2	0	7	15	43	34*
	3	1	1*	54	28	15
	4	0	1	21	39	39*
	5	0	18	37	36	9*
	6	0	10*	60	24	6
	7	1	15	33	39	12*
	8	0	6	21	40	33*

NUMBER OF STUDENTS REPLYING: FORM A (N= 67) FORM B (N= 65) FORM C (N= 66) FORM D (N= 67)

TOTAL SCALE RELIABILITY ESTIMATE= 0.83 PERCENTAGE OF OMITS= 0.4%

The asterisk (*) indicates the most favorable end of the continuum

(This page is a sample of the affective goal item response data pages and the Goal X page which follows is a sample of the cognitive pages. Pages 10-23 have been deleted to conserve space.)

<<< EQA, SPRING, 1979: NAME = GR. 11, ID = DATE RUN = 05/30/79 >>>

ITEM FREQUENCY ANALYSIS FOR GOAL I SELF-ESTEEM

FORM	ITEM	OMIT	PERCENT RESPONSE BY OPTION 1	2	3	4
A						
	1	0	25*	73	2	0
	2	0	7	37	53	3*
	3	0	12	25	39	24*
	4	0	15*	54	22	8
	5	0	14	37	44	5*
	6	0	5	22	64	8*
	7	0	5*	76	15	3
	8	0	8	20	47	24*
B						
	1	0	14*	53	24	10
	2	2	31	25	36	7*
	3	0	8	22	47	22*
	4	0	3*	59	32	5
	5	0	8	19	54	19*
	6	2	8*	31	39	20
	7	0	3	19	51	27*
	8	0	10	22	34	34*
C						
	1	0	20*	63	12	5
	2	0	13	27	53	7*
	3	0	10	15	37	38*
	4	0	3*	50	38	8
	5	0	8	18	48	25*
	6	0	9	27	42	23*
	7	0	5*	53	32	10
	8	0	15	33	30	22*
D						
	1	0	51*	44	5	0
	2	0	9	16	58	18*
	3	0	16*	63	18	4
	4	0	31	40	18	9*
	5	0	26*	46	23	5
	6	0	21*	63	9	7
	7	0	25	40	28	8*
	8	0	14	25	49	12*

NUMBER OF STUDENTS REPLYING: FORM A (N= 59) FORM B (N= 59) FORM C (N= 60) FORM D (N= 57)

TOTAL SCALE RELIABILITY ESTIMATE= 0.82 PERCENTAGE OF OMITS= 0.1%

The asterisk (*) indicates the most favorable end of the continuum

(This page is a sample of the affective goal item response data pages and the Goal X page which follows is a sample of the cognitive pages. Pages 10-23 have been deleted to conserve space.)

APPENDIX C

The following three pages display the self-esteem items and percentage of students answering each response choice. The data is based on approximately 30,000 students at each of three grade levels (5, 8 and 11) comprising the state representative sample for the 1979 assessment.

STATEWIDE ITEM DATA

Goal I—SELF-ESTEEM

Form A	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. My teachers usually tell me when they think I have done good work.	43*	42	7	3
2. I have a hard time deciding what to study.	11	27	29	28*
3. My classmates think I have good ideas.	18*	47	21	12
4. If I win a game, it's usually because I get lucky.	25	25	24	26*
5. I feel that my teachers understand me.	36*	42	12	9
6. Even when I know how to do something, I ask for help from others.	11	18	25	45*
7. My teachers sometimes make me feel that I cannot do good work.	16	20	27	38*
8. My classmates seem to like me.	43*	40	9	8
9. I can give a good report in front of the class.	21*	42	20	16
10. My teachers don't think that what I say is important.	11	19	33	38*
11. I feel unhappy about my schoolwork.	13	19	32	36*

Form B				
1. I'm proud of my schoolwork.	37*	49	10	4
2. My teachers want better work from me than I can do.	24	28	26	22*
3. I spend a lot of time daydreaming in school.	8	12	26	54*
4. I feel that my teachers like me.	39*	43	10	8
5. I often forget to listen to what others are saying.	12	27	34	27*
6. I do not make friends as easily as most other people.	15	19	25	40*
7. My teachers think I have good ideas.	17*	48	23	11
8. It bothers me if my classmates disagree with what I think.	16	28	32	25*
9. I am able to do many things well in school.	39*	45	10	6
10. I'm often called upon by the teacher to help out in the classroom.	17*	35	28	19
11. My classmates often make fun of me.	15	16	27	42*

Form C	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. In school I am often asked to be a leader.	12*	28	32	25
2. My teachers do not let me try out my ideas.	11	25	28	33*
3. I get along well with kids in my class.	48*	36	9	6
4. My teachers often make me feel that I can't do anything right.	12	16	26	45*
5. I give up if I don't understand something.	9	14	28	48*
6. I am good at picking out the right things to study.	21*	48	19	11
7. I often feel that other kids are better liked than I am.	26	26	27	19*
8. It is easy for me to give a talk in front of the class.	15*	26	28	31
9. I am usually one of the last to be chosen for a team.	19	19	26	35*
10. When I make a mistake, my teachers correct me without hurting my feelings.	48*	29	11	10
11. I can't seem to do anything in school very well.	9	14	30	47*

STATEWIDE ITEM DATA

Goal I–SELF-ESTEEM

Form A	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. When I make a mistake, my teachers correct me without hurting my feelings.	21*	56	14	8
2. I don't like to tell my ideas in class if I think others will disagree with me.	24	36	26	14*
3. I am able to do many things well in school.	25*	57	12	5
4. When things go wrong for me, it is usually someone else's fault.	7	16	55	21*
5. My teachers expect better work from me than I am able to do.	17	27	40	15*
6. I feel accepted by my classmates.	33*	49	12	6
7. My teachers usually ignore me.	7	15	49	29*
8. I am good at picking out the right things to study.	12*	54	23	11

C-2

Form B				
1. I can give a good report in front of the class.	14*	46	24	16
2. Getting good grades depends more on how the teacher feels about me than on how well I do my work.	11	19	36	33*
3. I often become discouraged in school.	16	29	41	13*
4. I am able to mix well with other people.	30*	53	12	5
5. In class I often feel "put down" by my teachers.	10	15	47	27*
6. I feel that my classmates do not consider me to be important.	11	21	44	24*
7. I feel that my ideas are considered worthwhile by my teachers.	10*	47	30	13
8. When I do well in school, it is more often a matter of luck than effort.	8	12	37	42*

Form C	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. My classmates think I have good ideas.	8*	61	23	7
2. I have a low opinion of my learning ability.	5	17	42	35*
3. My teachers listen to what I have to say.	16*	54	19	11
4. If I don't do well at something in class, it's usually because I didn't try hard enough.	27*	43	19	10
5. I am usually one of the last to be chosen for a group activity.	12	18	41	28*
6. I feel unhappy about my schoolwork.	11	23	46	19*
7. I feel accepted by most of my teachers.	20*	56	15	9
8. I often need someone to help me do my schoolwork.	8	17	45	30*

Form D				
1. I'm proud of my schoolwork.	20*	61	15	5
2. I do not make friends as easily as most other people.	8	18	41	32*
3. I feel that my teachers understand me.	11*	54	23	12
4. Having bad luck keeps me from doing better in class.	9	15	34	41*
5. I often feel that others are better liked than I am.	22	34	32	11*
6. I feel that my classmates have confidence in me.	14*	56	20	9
7. My teachers sometimes make me feel that I'm not good enough.	16	25	39	19*
8. I'm the sort of person who can't do anything in school really well.	8	16	37	38*

STATEWIDE ITEM DATA

Goal I—SELF-ESTEEM

Form A	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. I feel accepted by my classmates.	33*	59	6	2
2. Often in my classes I don't understand what point the teacher is trying to make.	9	26	53	12*
3. I am usually one of the last to be chosen for a group activity.	8	17	50	24*
4. My teachers listen to what I have to say.	17*	61	15	7
5. I feel unhappy about my schoolwork.	11	26	48	14*
6. I feel that my classmates do not consider me to be important.	7	20	50	23*
7. I am able to do many things well in school.	20*	62	14	4
8. I have a low opinion of my learning ability.	6	18	44	32*

Form B				
1. I'm proud of my schoolwork.	18*	59	17	5
2. I often feel that others are better liked than I am.	18	36	37	8*
3. When I do well in school, it is more often a matter of luck than effort.	6	15	48	31*
4. My classmates think I have good ideas.	7*	63	24	5
5. In class I often feel "put down" by my teachers.	6	15	53	26*
6. I can give a good report in front of the class.	13*	38	26	23
7. My teachers usually ignore me.	5	13	55	27*
8. I'm the sort of person who can't do anything in school really well.	6	13	41	39*

Form C	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
1. I feel that my classmates have confidence in me.	19*	67	11	3
2. My teachers expect better work from me than I am able to do.	11	28	51	10*
3. I do not make friends as easily as most other people.	7	19	43	32*
4. I am good at picking out the right things to study.	10*	58	24	7
5. Getting good grades depends more on how the teacher feels about me than on how well I do my work.	9	17	47	27*
6. If I win a game, it's usually because I got lucky.	6	17	50	27*
7. I feel that my ideas are considered worthwhile by my teachers.	8*	54	28	9
8. I don't like to tell my ideas in class if I think others will disagree with me.	14	34	35	16*

Form D				
1. If I work at something long enough in school, I will do it well.	46*	47	5	2
2. I often need someone to help me do my schoolwork.	4	16	52	27*
3. I feel accepted by most of my teachers.	20*	63	12	5
4. I keep my ideas to myself in class unless I am sure I'm right.	23	43	26	8*
5. If I don't do well at something in class, it's usually because I didn't try hard enough.	25*	47	21	7
6. I am able to mix well with other people.	29*	57	10	4
7. I often become discouraged in school.	18	30	42	10*
8. My teachers sometimes make me feel that I'm "not good enough."	12	20	46	21*

EQA 1979 Data

APPENDIX D

SELF-ESTEEM
Grade 5

Sample School #2
Self Esteem Percentile=20

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B	
Teacher Items									
A	1	59	35	94	43	42	85	9	teachers tell me of good work
A	5	53	35	88	36	42	78	10	understand me
A	7	41	24	65	36	27	63	2	
A	10	41	29	70	36	33	69	1	
B	2	6	28	34	22	26	48	-14	want better work than I can do
B	4	50	22	72	39	43	82	-10	teachers like me
B	7	17	44	61	17	48	65	-4	
B	10	17	50	67	17	35	52	15	Help out in classroom
C	2	29	24	53	33	28	61	-8	Don't let me try out ideas
C	4	53	29	82	45	26	71	11	can't do anything right
C	10	41	41	82	48	29	77	5	
								ave = 2	
Peer Items									
A	3	24	47	71	18	47	65	6	
A	6	59	12	71	45	25	70	1	
A	8	53	24	77	43	40	83	-6	
B	6	22	22	44	40	25	65	-21	Don't make friends as easily as others
B	8	11	17	28	25	32	57	-29	Bothers me if others disagree
B	11	50	22	72	42	27	69	3	
C	1	24	24	48	12	28	40	8	
C	3	41	35	76	48	36	84	-8	Get along well with kids
C	7	18	29	47	19	27	46	1	
								ave = -5	

Sample School #1
-- Continued --

SELF-ESTEEM
Grade 5
Continued

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B	
School Items									
A	2	18	18	36	28	29	57	-21	Decide what to study
A	4	29	6	35	26	24	50	-15	Win game because lucky
A	9	24	35	59	21	42	63	-4	
A	11	29	24	53	36	32	68	-15	Unhappy about Schoolwork
B	1	33	56	89	37	49	86	3	
B	3	39	22	61	54	26	80	-19	Daydream in school
B	5	11	28	39	27	34	61	-22	Forget to listen to others
B	9	17	61	78	39	45	84	-6	
C	5	35	24	59	48	28	76	-17	Give up if don't understand
C	6	24	47	71	21	48	69	2	
C	8	24	18	42	15	26	41	1	
C	9	29	12	41	35	26	61	-20	Last chosen for team
C	11	41	29	70	47	30	77	-7	

Ave = -11

Number responding per form

A = 17, B = 18, C = 17

APPENDIX D (Continued)

EQA 1979 Data

Sample School #3
Self Esteem Percentile=60

SELF-ESTEEM
Grade 5

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B	
Teacher Items									
A	1	69	13	82	43	42	85	-3	
A	5	25	56	81	36	42	78	3	
A	7	25	25	50	36	27	63	-13	Make me feel cannot do good work
A	10	13	56	69	36	33	69	0	
B	2	6	35	41	22	26	48	-7	Want better work than I can do
B	4	35	41	76	39	43	82	-6	
B	7	0	65	65	17	48	65	0	
B	10	12	24	36	17	35	52	-16	Help out in classroom
C	2	31	6	37	33	28	61	-24	Don't let me try out ideas
C	4	56	13	69	45	26	71	-2	
C	10	50	19	69	48	29	77	-8	Correct me without hurting my feelings
								Ave = -7	
Peer Items									
A	3	38	56	94	18	47	65	29	Think I have good ideas
A	6	31	50	81	45	25	70	11	Ask for help from others
A	8	38	44	82	43	40	83	-1	
B	6	71	18	89	40	25	65	24	Don't make friends as easily as others
B	8	29	41	70	25	32	57	13	Bothers me if others disagree
B	11	41	29	70	42	27	69	1	
C	1	13	19	32	12	28	40	-8	Asked to be a leader
C	3	31	56	87	48	36	84	3	
C	7	13	44	57	19	27	46	11	Others better liked
								Ave = 10	

Sample School # 3
--Continued--

SELF-ESTEEM
Grade 5
Continued

Form	Item	Local % Most Fav. Responses	Local % Favorable Responses	Column A Total Local % Favorable Responses	State % Most Fav. Responses	State % Favorable Responses	Column B Total State % Favorable Responses	Difference: COLUMN A - COLUMN B	
School Items									
A	2	19	50	69	28	29	57	12	Decide what to study
A	4	44	19	63	26	24	50	13	win game because lucky
A	9	6	44	50	21	42	63	-13	Give good report in front of class
A	11	19	44	63	36	32	68	-5	
B	1	41	35	76	37	49	86	-10	Proud of schoolwork
B	3	59	29	88	54	26	80	8	Daydream in school
B	5	29	35	64	27	34	61	3	
B	9	47	41	88	39	45	84	4	
C	5	44	25	69	48	28	76	-7	Give up if I don't understand
C	6	13	69	82	21	48	69	13	Pick out right thing to study
C	8	19	31	50	15	26	41	9	Give talk in front of class
C	9	38	38	76	35	26	61	15	One of last chosen for a team
C	11	31	44	75	47	30	77	-2	

Ave = 3

Number responding per form

A = 16, B = 17, C = 16

APPENDIX E

Recommendations for Effective Involvement of Teaching Staff in Conducting the Self-Esteem Item Analysis

To be useful, the results of item analysis must be conveyed to the teaching staff in some meaningful way. Field experience has shown that when an item analysis is completed by the administrator and later shared with the teaching staff during a faculty meeting, it typically comes across as information "laid on." There is a tendency for staff to be resistant and defensive when the information is packaged and handed down from the administration.

The most effective model, found through work with teachers, for conveying item analysis information seems to be one in which the teaching staff and the administrator are involved in working through the process together. Advantages of this approach include the following:

(1) The staff develops in understanding of how each item is stated.

(2) The staff can compare how students in their school responded with student responses statewide.

(3) Staff ownership of the results is promoted by observing the connection between the situation posed by the item and school relevant practices or ways of relating to students that affect self-esteem.

(4) Diminishes staff defensiveness and feeling of being attacked.

To insure a constructive session, the administrator must thoroughly understand the procedure for conducting an item analysis. Efforts to create a non-threatening atmosphere are essential. The session can be introduced by providing an explanation of the general findings from the Educational Quality Assessment school building report followed by a clear explanation of the value of the item analysis process. Also, teachers should be given several questions that are to be answered through their item analysis work. Examples of teacher questions would include: What are the school strengths in self-esteem? What are the school weaknesses? Whal plans should be considered to improve weaknesses? Sufficient time must be allowed to demonstrate the mechanics of the process. Photocopies from the page in the school report containing the self-esteem item data, together with the page in the interpreters manual displaying the self-esteem items and statewide item responses, should be provided to each staff member. Carrying out the computations can be expedited, and made more fun, by forming groups to work on a certain portion of the items. The most logical approach is to have three groups, each working on a particular cluster (teacher relationships, peer relationships and self-image in school). One teacher in a group can serve as a recorder, writing down figures on the item analysis worksheet that are read from the school building report by a second

staff member and, from a third person, who reads the statewide figures for comparable items. When this is completed, each group can report their findings to the entire group. The administrator role during this time is simply to facilitate the process, allowing teachers to discover the results and draw conclusions. When the results emerge, which may touch on a sensitive area such as an apparent student perception that they do not feel accepted by their teachers, it is essential that the administrator employ effective listening skills by responding in a non-blameful way and leading the staff in some constructive brain storming as to possible ways of improving the situation.

Another design would be to have teachers work in pairs to complete the item analysis. This would be followed by the teacher pairs reporting their findings, on the questions assigned, to a group that would formulate a report for the larger group. These presentations would provide greater teacher involvement and understanding of item data.

RLK/ks